

**INSTRUCTIONS**  
**FORM F12**  
**OFF-HIGHWAY MOBILE SOURCES**

Department of Environmental Quality  
Division of Air Quality  
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DAQ ID	For office use only.
Pt. Source ID	Provide the identification number for each source.
SCC	Enter the appropriate Source Classification Code (SCC). See the General Instructions for explanation.
Mobile Source Description	Choose the appropriate category from the following: <ol style="list-style-type: none"><li>1. Scrapers;</li><li>2. Front end loaders;</li><li>3. Shovels;</li><li>4. Bottom Dump Trucks;</li><li>5. End dump trucks;</li><li>6. Draglines;</li><li>7. Graders;</li><li>8. Bulldozers (track type);</li><li>9. Wheeled dozers;</li><li>10. Tractors;</li><li>11. Rollers;</li><li>12. Water trucks;</li><li>13. Forklifts;</li><li>14. Underground mining equipment;</li><li>15. Track excavators;</li><li>16. Sweepers;</li><li>17. Fire pump;</li><li>18. and Others (unspecified).</li></ol>
Number of Vehicles	Enter the number of vehicles operated for each vehicle category.
Fuel Information	Enter the type of fuels used, i.e., gasoline, diesel, liquified petroleum gas (LPG), etc., and the amount used in gal. per year.
Emissions	Calculate the emissions in tons per year generated from the operation of this equipment. <b>Provide complete calculations on a separate sheet.</b>
Estimate Code	Provide the valid method code for quantifying actual emissions of each pollutant. The valid method codes are listed in Table II of the General Instructions. These are the only codes which will be accepted. If the Estimate Code 8 (AP-42 factors) is used, please provide the section number of AP-42 in the Comment column.
Emission Factor	Provide the emission factor used to calculate the estimated emissions for each pollutant.

**Suggested Emission Factors for Gasoline and Diesel Fuels**

**(lb emissions/hr of operation)\***

Note: Blanks do not imply zero emissions, choose most representative alternative emission factor.

	Particulate		SO <sub>2</sub>		NO <sub>x</sub>		VOC		CO	
	Diesel	Gas	Diesel	Gas	Diesel	Gas	Diesel	Gas	Diesel	Gas
Track tractor	.11		.14		1.3		.12		.35	
Wheeled tractor	.14	.02	.09	.02	1.3	.43	.19	.36	3.6	9.5
Wheeled dozer	.17		.35							
Scraper	.41		.46		3.8		.28		1.3	
Grader	.06	.02	.09	.02	.71	.32	.04	.41	.15	12
Wheeled loader	.17	.03	.18	.02	1.9	.52	.25	.53	.57	16
Track loader	.06		.08		.83		.10		.20	
Off-HWY truck	.26		.45		4.2		.19		1.8	
Roller	.05	.03	.07	.02	.86	.36	.07	.61	.30	13
Misc.	.14	.03	.14	.02	1.7	.41	.15	.56	.68	17

\* References: AP-42 Tables II-7.1 and II-7.2

**Suggested Emission Factors for LPG Fuel  
(lbs/1000 gals burned)\***

Part.	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
5.0	.35	139.0	83.0	129.0

\* References: EPA- 450/4-90-003